UNIVERSITI PUTRA MALAYSIA

INCOME SMOOTHING - AN ANALYSIS ON THE CURRENT EVIDENCE OF RESEARCH

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MBA PROJECT WORK

INCOME SMOOTHING - AN ANALYSIS ON THE CURRENT EVIDENCE OF RESEARCH

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Content **Page**

Part 1

1.1 Acknowledgement..... 3

1.2 Preface..... 4 - 5

Part 2

2.1 Executive summary..... 6 - 7

2.2 Problem Statement..... 7 - 8

2.3 Research Objectives..... 8 - 9

2.4 Literature Review..... 9 - 10

Part 3

3.1 Introduction..... 11 - 13

3.2 Definition..... 14 - 15

3.3 Authorities..... 15

3.4 History.....15 - 18

3.5 Analysis..... 19 - 49

3.5.1..... 19 - 22

3.5.2..... 23 - 28

3.5.3..... 29 - 35

3.5.4..... 35 - 37

3.5.5..... 38 - 40

3.5.6..... 40 - 49

3.6 Summary..... 50 - 51

Part 4

4.1 Bibliography..... 52 - 54

Part 1

1.1) Acknowledgement

This project work has been an eye opener for me. Coming from an accounting background, the rigours of exams are nothing new. However; having to analyse and write a body knowledge in an academic regime exposed me to an entirely new experience. It is a hard but exhilarating experience nevertheless. It provided me with a new perspective on higher learning.

I would like to extent my heartfelt gratitude to all the lecturers responsible for the 1997-1999 MBA class (Intake IV). I specifically acknowledged the help and contribution extended by my supervisor; Dr Mohamad Ali Bin Abdul Hamid. I appreciate and understand the patience that he exercised towards a perennially struggling matured student .

Not to be forgotten, my sincerest thank you to my wife Hajjah Siti Aishah Bt. Awang and my two children; Mohamad Arif and Nur Anis for coping with me during the busy times. I promised to make up for the lost times .

1.2) Preface

In writing this paper I have one aim; that is to produce a descriptive research paper. It will have clear objectives[1] . I tried to follow as much as possible the recommended research format[2] . The format is arranged to achieve the objectives and to provide continuos flow of information.

I set a high standard for myself. I strived to follow as fully as possible the criteria set for a full master thesis; even though this study is actually only a three months project work. The criteria for any PhD and a full master thesis can be defined as:

(an) original contribution to learning which is coherently structured and clearly presented and which shows evidence of systematic study and of ability to relate the results of such study to the general body of knowledge in the subject.

A such I think this study is pertinent because it fits particularly well especially to the last part of the criteria.

In due course of my study I found there is a glaring lacked of research being done in the Asian region context. Data are difficult to come by. In the end I relied more on Western based research database.

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[1] Refer 3.2 page

[2] Refer "Business Research Methods"

Asian region operate under unique business and accounting environment. They represent different story altogether. Knowledge culled from the western experience might not necessarily be congruent. Therefore if academics and practitioners want to understand the Asian perspectives, more research in this region must be promoted. In the end only two Singapore study; which have some relevance on income smoothing; were used in this paper. They provided invaluable knowledge to local researchers in local universities. The dearth of research might stem from lacked of proper recording of local data and insufficient expertise .

PART 2

2.1 Executive Statement Summary

Income smoothing is a popular research topic. There are many academic papers been published since 1950s. These research papers analysed the topic from many different perspectives.

Examples are:

1. Analysing accounting techniques being used to smooth incomes such as depreciation and using different stock valuations.

2. Analysing conditions under which smoothing is effective.

3. Looking at objectives (management motivation) such as income maximisation and political constraints.

4. Dimensions of smoothing whether it is real or artificial.

5. Studying smoothing variables such extraordinary items and investment tax credits

6 Events study which observed behaviours in order to determine the presence of smoothing.

However there are not many research being undertaken to collate and synthesise all these research into one coherent essay. The benefits are obvious. Too many disparate research leads to redundancy and short term planning. By having a 'helicopter view' of the current state of research in the topic, academicians, practitioners and regulators alike can strategised their approach.

The focus of this 'mini' study concentrated on 14 referenced research. There are 4 more peripherals research referred to; plus the various books read in order to get a better understanding of the topic.

2.2 Problem Statement

Income smoothing is a common and practical phenomena. As such it generates a lot of interests to many different users. There are many research by academicians and professional bodies on the topic. These researches indicate that it is pervasive in many types of forms and industries. With such accumulated knowledge; it would be tempted to say that we are better able to understand the situation. However there is a dearth of comprehensive compilation of these knowledge.

Hence the knowledge is not been disseminated in a systematic fashion. In short, we need a road map knowledge consisting of these disparate information. This study attempt to provide such 'road map'; which hopefully enable other readers better view of the topic.

2.3 Research Objectives

2.3.1 To systematically compile knowledge in the area of income smoothing. The issues in income smoothing is wide-ranging. Research have been done from different angles. As such there is the problem of not knowing the forest because of the trees. By systematic classification of those research, then an overall picture will be clearer.

2.3.2 To identify gap in the present knowledge. With a library of systematically compiled and classified research on the topic of income smoothing, it is possible to analyse the current state of research and also to pinpoint areas that are underrepresented by current research. Efforts can then be channel to cover the gap in knowledge.

For example events-based research are still quite scarce as compared to traditional normative research. Concentration on the former approach would be a good opportunity to balance the knowledge so that a different perspective can be gained.

2.3.3 An analysis of these research will enable future issues to be identified. It can help towards creating a conceptual framework, that is still eluding the accounting world. The governing authorities and the professional bodies alike can anticipate future developments and events. Consequently they can come up with better regulatory measures that are more stable and anticipative. Hopefully this paper can help towards reducing the 'fire fighting' approach as practised now.

2.3.4 To identify possible negative impacts that can arise in income smoothing. Financial statements are full of value judgements. It will continue to be like this for the foreseeable future or until a reliable or all encompassing Conceptual Framework be found. As such users need to protected from the negative aspects of income smoothing. This kind of study can help towards that end by identifying the possibilities. It can also be used to identify common and specific problems faced by research in this area.

2.4 Literature Review

Income smoothing is a fairly extensively researched topic. Those research were done with specific objectives and approaches. For example; a lot of research have been done on methods of income smoothing. As a result the authors would concentrate on that approach only and disregarding other possible links from various approaches. In other words the approach to research has been individualistic.

A compilation and analysis of all the research could help direct future research and can also identified possible linkage of these haphazard research. However there are not many of such research being done.

As it stand, the present state of research in this topic might not necessarily be a balanced research. For example there are still lacked event based study compared to the normative study. Hopefully this paper can remedied that imbalance slightly.

A good attempt was written by Dale Buckmaster (June 1997) in his paper 'Antecedents of Modern earnings management research: Income smoothing in literature, 1954-1965'.
His analysis was restricted to that period because of lacked of data prior to that. He also noted that there are major shift in approach during the 1954s for reasons that will be later detailed in the text. This shift means that the research and the data are consolidated post 1954. Pre-1954 data were less used due to the paradigm shift.

His study also focused on two noted writers at the time; that is Gordon and Hepworth. each contributed significantly to the research in income smoothing during their time and subsequently. Gordon; among others; is noted for his multidisciplinary approach. Hepworth is noted for his pioneering work in income smoothing. He mostly tried to identify accounting tactics that we know now as income smoothing.

A more recent discussion on income smoothing literature prior to Hepworth was provided by [Buckmaster ,1992].

Part 3

3.1 Introduction

Financial Statements are important tools in understanding the performance of companies. They relied more on the quantitative side of decision making. They can also be used to gain qualitative insights into the performance of the companies. These latter factors are approximated by interpreting how and why the numbers are used. That is why an experienced reader can proved to be valuable person when it comes to interpreting those numbers. Better decisions are made when the qualitative aspects and the quantitative aspects are combined.

However, even the best of analyst can commit errors. This happens when the numbers are manipulated. Most vulnerable for this type of intervention is social science based discipline such as accounting. Numbers can be manipulated to show the desired effects. One of the more popular name for this type of activity is 'creative accounting'. A more academic version is called earnings management (Davidson, 1987) or disclosure management (Schipper, 1989). If the purpose is to specifically stabilised income, through various means, then it is called 'income smoothing'.

Value judgements are inherent in the preparation of any accounts. As such, practically and historically, businesses were allowed some flexibility. Within these grey areas they tend to 'smooth out the income'. This is because companies like to avoid fluctuations in incomes; as is normally inherent in any business activities. There are various incentives for this as identified in the later parts of this study.

Research have confirm the occurrence of this practice in various forms. This posed a practical challenge to understand and to provide solution that hopefully will balanced the cost and benefits. As will be stated later in the text, research have confirm the advantages and disadvantages of income smoothing. So it is not really a bad thing to have. However the regulators and the users must make sure that it is not open to abuse. That is the reasons for the research.

This topic is of great interest to many parties ranging from the government right down to the ordinary investors. It affects everybody that use financial statements.

Management usually execute some forms of income smoothing by choosing principles or alternatives which suits their purpose and objectives. The built in slack in standards help to facilitate these activities.

There are many incentives for management to smooth incomes. A smoothed out incomes tend to denote stability. Therefore will attract the kind of investors that the companies desire[3]. Risk averse investors will prefer it and correspondingly the pattern will also alert risk takers to invest in an opposite profile companies. Another incentive is that the resultant stability in incomes will improve the predictive ability of the stakeholders. Companies will perceived to be less risky and therefore can command lower costs of borrowing. All these are positive aspects of income smoothing.

When claim holders observe a smooth income stream, they are uncertain about whether it came from a firm with high volatility that smoothed its reported income stream, or if it came from a firm with low volatility that did not have the flexibility to smooth income, on the assumption that claim holders cannot fully observe each firm's operations and so are not certain of the flexibility it has to shift income.

[3] Refer Modigliani & Miller theory

3.2 Definitions.

The term income smoothing is derived from the more generic term 'earnings management'.

Earnings management has been defined as ' a process of taking deliberate steps within the constraints of generally accepted accounting principles to bring about a desired level of reported earnings' (Davidson et al., 1987).

Schipper (1989), on the other hand, called earnings management as disclosure management.

Income smoothing is defined as a deliberate dampening of fluctuations about some level of earnings which is considered to be normal for the firm (Barnea, Ronen and Sadan 1976, 110)

Copeland (1968) defined it as;

the repetitive selection of accounting measurement or reporting rules in a particular pattern, the effect of which is to report a stream of income with a smaller variation from trend otherwise would have appeared.

Beattie et al. 1994 defined Income Smoothing as an attempt by managers to reduce the variability of reported earnings over several periods or within an accounting period

3.3 Authorities

There are many well known and respected researchers in this topic. The most well known and often quoted authors are Barnea, Ronen, Sadan and Copeland. Their definitions are often used at the beginning of other researchers' work. Their studies became the basis of subsequent work. Watts and Zimmerman (1978) and Ronen and Sadan (1981), and Moses (1987) concentrated their studies on motivation-based factors such as income or compensation related schemes. Trueman and Titman (1988) approach their studies through an agency setting.

3.4 History

The earliest study found so far was that written by Yamey (1960). His essay was on the nineteenth century origins of mid-century accounting practices. He identified practices such as depreciation, hidden reserves, unusual nonrecurring items, excessive provision for contingencies, and expensing capital assets as early smoothing tactics.

According to Dale Buckmaster (1997), prior to 1954 research bases emphasised more on the management context. subsequent to that year the emphasis shifted to that of regulatory context.

Gordon gained his prominence by carefully deriving his testable hypotheses from various sources, managerial, behavioural and accounting viewpoint. He does not restrict himself to one narrow viewpoint as is the norm then. It is more comprehensive and systematic construction of testable hypotheses. The timing is also important because at that time there were an apparent favourable shift from the normative to the empirical research methods. Many prominent academics (Devine, 1963; Mautz,1965; Green, 1966) were calling for such empirical research. Gordon's work contributed significantly towards the development of the subsequent researches.

One of Gordon's influence is his development of a theory of managers' motivation to smooth income in order to enhance stockholder satisfaction. He sourced these managerialist theories from authors that were emerging in the late fifties and the early sixties. Authors such as Cyert and March (1965) introduced the concept of organisational slacks. Baumol (1959) treated sales maximisation as managers' goal. Williamson (1963) included development of a behavioural model of management decisions for a public utility. Therefore his paper was not the first one to come out with an innovative ideas but his was the first to comprehensively collate all these innovative and old ideas into a coherent approach.

As a digression, it is hoped that this paper; in its own way; can provide assistance to that effect for future development.

Gordon's paper focused more on facilitating regulators' choice of accounting methods. His 1964 article pointed to the failure of ARS nos. 1 to 3 to provide regulatory guidance for the selection of accounting practices. This failure is the result of the traditional normative accounting research preferred at the time.

His specific objective is to make it as a criterion for accounting choice by regulators. It is this objective that proved to be the most influential in subsequent empirical research. Although he was not the first one to point at that. Johnson (1954), among others already wrote a paper on that. There are already three papers published preceding the 1954-1965, not including Gordon's paper advocating the same topic. The difference is that they looked from the managers' point of view. The four papers published during the period look from the accounting regulation point of view.

There appeared to be two schools of thoughts. One group of academics supported smoothing as a criterion for accounting choice, while the others argued that smoothing is not desirable attribute of financial accounting.

Hendricksen (1965, p. 274) criticised income smoothing by this remark:

'smoothing is not a desirable attribute of financial accounting particularly if it is artificial. The goal of smoothing confuses an operational goal of the firm wit an accounting goal If the results of operations are not, in fact, smooth, accounting should not make them appear as if they were'.

Bricker (1988) found that earlier literature (pre-1960) is rarely sited in contemporary literature. His observation of the phenomena is that "accounting academicians moved away from the practice orientations, towards a social science model of research. The pioneering work done during this period and thereafter often provides a year zero for later work, and previous studies are therefore often not considered". This is parallel to the questions being asked in early research ' Do companies smooth reported income' to modern day research question ' to what extent and under what conditions do companies smooth reported income'.

Also prior to the 1960s, accounting literature has traditionally been poorly documented. The term itself is fairly new in 1966. the quantity is also less. Hence due to costly accumulation of knowledge and information.

3.5 Analysis

3.5.1 Accounting techniques such as using depreciation and different valuation of stock.

Archibald (1967) is one of the pioneering authors on the relationship between income smoothing and depreciation methods.

There is also a study to determine income smoothing under certain operating conditions. The most recent one by Don Herman and Tatsuo Inoue. The purpose of the study is to examine incentives of Japanese managers to smooth income using depreciation changes under different operating conditions.

A total of six incentives were investigated: firm size, taxes, management bonuses, capital intensity, changes in sales, and earnings variability.

This is one rare example of research being done in the Asian context. The Japanese context provided different business environment and different accounting practices. A major difference between Japan and other western systems is the relative importance of earnings. Western firms place great emphasis on short term earnings maximisation. Japanese firms, on the other hand, have historically placed more emphasis on financial statistics other than earnings, such as market share and sales growth.

The model used multiple regression to determine which factors influence smoothing behaviour of Japanese firms. Correlations between pairs of independent variables are between -0.33 and +0.14. The correlation between firm size and earnings variability is -0.33 demonstrating that smaller firms exhibit greater earnings variability.

Table 1

Depreciation Changes by Year

Fiscal Year	Total Depreciation Changes	Income Smoothing	Non-Income Smoothing
1,986	33	23	10
1,987	43	29	14
1,988	62	38	24
1,989	57	42	15
1,990	99	63	36
1,991	109	72	37
1,992	121	63	58
Total	524	330	194

Fiscal Year	Profit	Loss	
1,986	28	5	
1,987	39	4	
1,988	61	1	
1,989	53	4	
1,990	91	8	
1,991	94	15	
1,992	89	32	
Total	455	69	

The results for the full sample of 524 Japanese companies indicate significant coefficient for the firm size, income taxes, depreciable assets, and deviation in operating activities. Earnings variability has an insignificant negative coefficients.

Table 2

Full sample Results

Variable (n=524)	EGLS Coefficient	EGLS t-statistic
Size		2.15
Tax		2.89
BONUS		-0.33
Dasset		4.72
Dev		1.5
Var		-1.27
Constant		-2,045

Notes : One tailed significance levels : 0.10*/0.05(**)/0.11(**)

Table 3

Smoothing Behaviour by Operating Condition

	Profit and Positive CEBD	Profit and Negative CEBD	Loss	Total
Income Smoothing	241	55	34	330
Non Income Smoothing	68	91	35	194
Total	309	146	69	524

Table 4

Full Sample Results By Operating Condition

Variable	EGLS Coefficient	EGLS t-statistic
Profit & Positive CEBD n= 309		
Size	0.00042	1.21
Tax	0.06732	2.62
Bonus	0.00539	0.42
Dasset	0.0231	5.87
Dev	0.00769	5.44
Var	-0.08903	-3.03
Constant	-0.00704	-1.58
Adj. R= 0.213		
Profit & Negative CEBD n=146		
Size	-0.00041	-0.88
Tax	-0.09534	-3.16
Bonus	-0.02499	-1.01
Dasset	0.00075	0.15
Dev	-0.01124	-1.05
Var	0.00174	0.72
Constant	0.00654	1.08
Adj. R=0.048		
Loss companies n=69		
Size	0.00049	0.48
Tax	-0.00877	-0.11
Dasset	0.1036	1.42
Dev	-0.0039	-0.36
Var	-0.00739	-0.27
Constant	-0.00688	-0.6